

**HPS Trailer Page  
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**Summary**

<b>Document</b>	<b>Pages</b>	<b>Printed</b>	<b>Missed</b>
US005681728	16	16	0
Total (1)	16	16	0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
1	BRS	L1	241	((hyaluron\$4 or acp or luronit or mucoitin) near2 ester) or hyaff	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM TDB	2001/05/16 07:41			0
2	BRS	L2	321	((hyaluron\$4 or acp or luronit or mucoitin) near5 ester) or hyaff	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM TDB	2001/05/16 07:41			0
3	BRS	L3	136541	((osteogenic or bone) near2 protein) or bmp or op or op-1 or op1 or bone	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM TDB	2001/05/16 07:43			0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Errors
4	BRS	L4	85	12 and 13	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM TDB	2001/05/16 07:43			0
5	BRS	L5	13	12 same 13	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM TDB	2001/05/16 07:43			0

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS  
 RN 129805-33-0 REGISTRY  
 CN Bone morphogenetic protein 7, prepro- (human clone HH(dT+R)-1 reduced)  
 (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN 11: PN: WO0066620 SEQID: 2 unclaimed protein  
 CN 1: PN: WO0029012 SEQID: 2 claimed protein  
 CN 2: PN: WO0123563 SEQID: 2 unclaimed protein  
 CN 34: PN: WO0020449 SEQID: 39 unclaimed protein  
 CN 38: PN: WO0020607 SEQID: 39 claimed protein  
 CN 39: PN: WO0020591 SEQID: 39 claimed protein  
 CN 3: PN: US6110482 SEQID: 2 unclaimed protein  
 CN 3: PN: WO0066620 SEQID: 3 claimed protein  
 CN 7: PN: WO0020021 SEQID: 2 unclaimed protein  
 CN Bone morphogenetic protein 7 (human precursor)  
 CN Bone morphogenetic protein 7 (human)  
 CN Bone morphogenetic protein 7, prepro- (human)  
 CN Glycoprotein (human clone PEH7-9 bone morphogenetic 7 subunit precursor  
 protein moiety reduced)  
 CN Glycoprotein OP 1, prepro- (human clone HH(dT+R)-1 osteogenic protein  
 moiety reduced)  
 CN Glycoprotein, prepro- (human clone morphogenetic 7 subunit protein moiety  
 reduced)  
 CN **OP-1 (human)**  
 CN Osteogenic protein 1 (human)  
 CN osteogenic protein X, prepro- (human)  
 CN Protein OP 1 (human brain osteogenic)  
 CN Protein OP-1 (human osteogenic protein-1)  
 FS PROTEIN SEQUENCE  
 DR 133606-73-2, 134548-31-5, 199945-19-2  
 MF Unspecified  
 CI MAN  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

\*\*\* USE 'SQD' OR 'SQIDE' FORMATS TO DISPLAY SEQUENCE \*\*\*

23 REFERENCES IN FILE CA (1967 TO DATE)

2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

22 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> d 14

L4 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2001 ACS

RN 186378-26-7 REGISTRY

CN Glycine,

L-valyl-L-prolyl-L-threonyl-L-.alpha.-glutamyl-L-leucyl-L-seryl-L-alanyl-L-isoleucyl-L-seryl-L-methionyl-L-leucyl-L-tyrosyl-L-leucyl-L-.alpha.-aspartyl-L-.alpha.-glutamyl-L-asparaginyl-L-.alpha.-glutamyl-L-lysyl-L-valyl-L-valyl-L-leucyl-L-lysyl-L-asparaginyl-L-tyrosyl-L-glutamyl-L-.alpha.-aspartyl-L-methionyl-L-valyl-L-valyl-L-.alpha.-glutamyl- (9CI) (CA INDEX NAME)

OTHER NAMES:

CN **BMP-2A (human finger 2 domain-contg. fragment)**

FS PROTEIN SEQUENCE; STEREOSEARCH

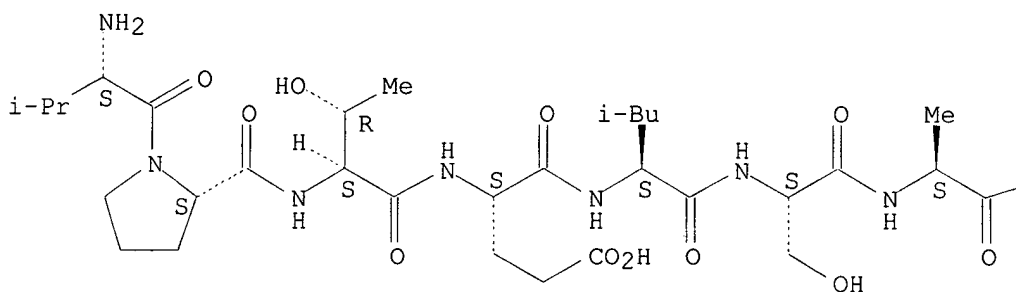
MF C156 H252 N36 O52 S2

SR CA

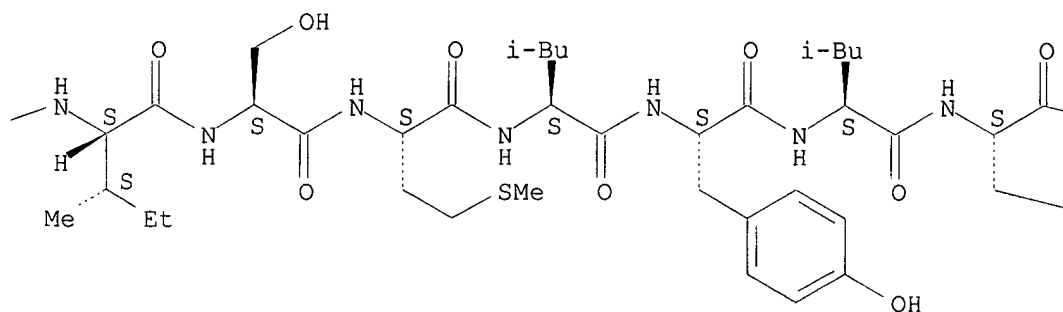
LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

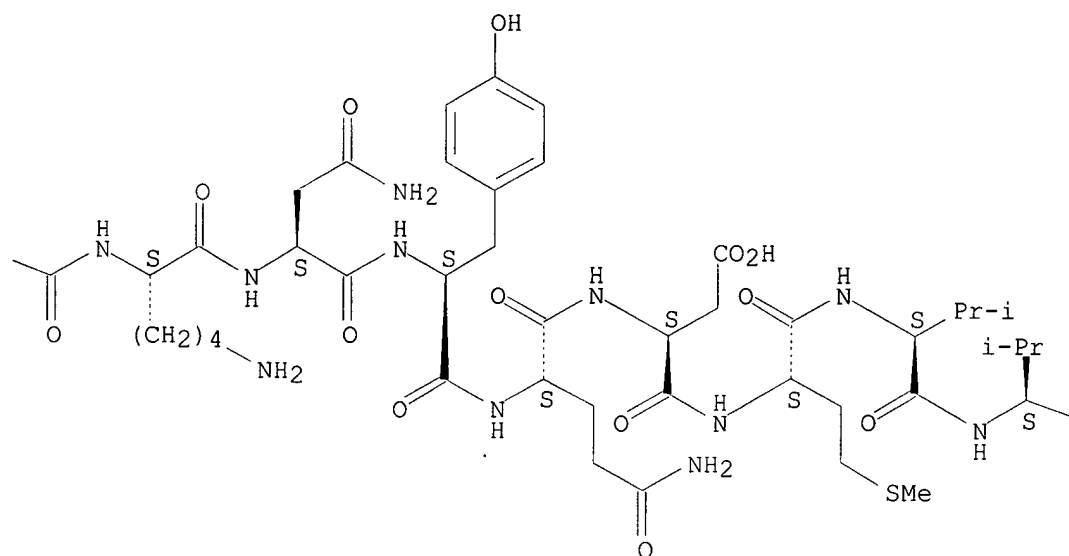
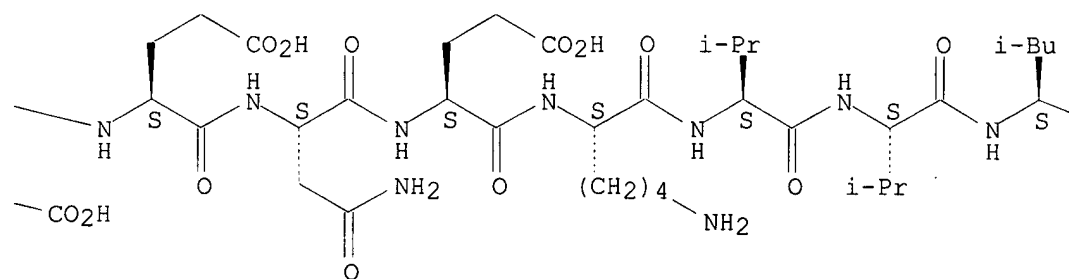
Absolute stereochemistry.

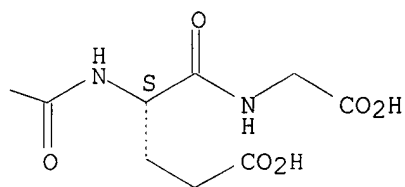
PAGE 1-A



PAGE 1-B





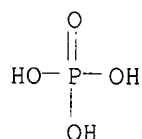


1 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS  
RN 9004-61-9 REGISTRY  
CN Hyaluronic acid (8CI, 9CI) (CA INDEX NAME)  
OTHER NAMES:  
CN ACP  
CN ACP (polysaccharide)  
CN ACP gel  
CN Hyaluronan  
CN Luronit  
CN Mucoitin  
CN Sepracoat  
DR 9039-38-7, 37243-73-5, 29382-75-0  
MF Unspecified  
CI PMS, COM, MAN  
PCT Manual registration, Polyester, Polyester formed  
LC STN Files: ADISINSIGHT, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS,  
BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,  
CHEMLIST, CIN, CSCHEM, DDFU, DRUGNL, DRUGU, DRUGUPDATES, EMBASE,  
IFICDB,  
IFIPAT, IFIUDB, IMSDIRECTORY, IPA, MEDLINE, MRCK\*, NAPRALERT, NIOSHTIC,  
PHAR, PIRA, PROMT, TOXLINE, TOXLIT, USAN, USPATFULL  
(\*File contains numerically searchable property data)  
Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
(\*\*Enter CHEMLIST File for up-to-date regulatory information)  
  
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
7606 REFERENCES IN FILE CA (1967 TO DATE)  
568 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
7614 REFERENCES IN FILE CAPLUS (1967 TO DATE)



L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS  
 RN 7758-87-4 REGISTRY  
 CN Phosphoric acid, calcium salt (2:3) (8CI, 9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN .alpha.-Tricalcium phosphate  
 CN .beta.-TCP  
 CN .beta.-Tricalcium phosphate  
 CN .beta.-Whitlockite  
 CN Apamicron AP 12C  
 CN Bonarka  
 CN Calcium orthophosphate  
 CN Calcium orthophosphate (Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>)  
 CN Calcium phosphate  
 CN Calcium phosphate (3:2)  
 CN Calcium phosphate (Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>)  
 CN Calcium tertiary phosphate  
 CN Multifos  
 CN Phosphoric acid calcium(2+) salt (2:3)  
 CN Posture  
 CN Posture (calcium supplement)  
 CN Synthograft  
 CN Synthos  
 CN TCP  
 CN TCP 10  
 CN Tertiary calcium phosphate  
 CN Tribasic calcium phosphate  
 CN Tricalcium diphosphate  
 CN Tricalcium orthophosphate  
 CN **Tricalcium phosphate**  
 CN Tricalcium phosphate (Ca<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub>)  
 DR 1344-15-6, 123211-19-8  
 MF Ca . 2/3 H3 O4 P  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA,  
 CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN,  
 CSCHEM, DDFU, DETHERM\*, DIOGENES, DRUGU, EMBASE, GMELIN\*, HSDB\*,  
 IFICDB,  
 IFIPAT, IFIUDB, MEDLINE, MRCK\*, MSDS-OHS, NIOSHTIC, PDLCOM\*, PHAR,  
 PIRA,  
 PROMT, TOXLIT, TOXLIT, TULSA, USPATFULL, VETU, VTB  
 (\*File contains numerically searchable property data)  
 Other Sources: DSL\*\*, EINECS\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)  
 CRN (7664-38-2)



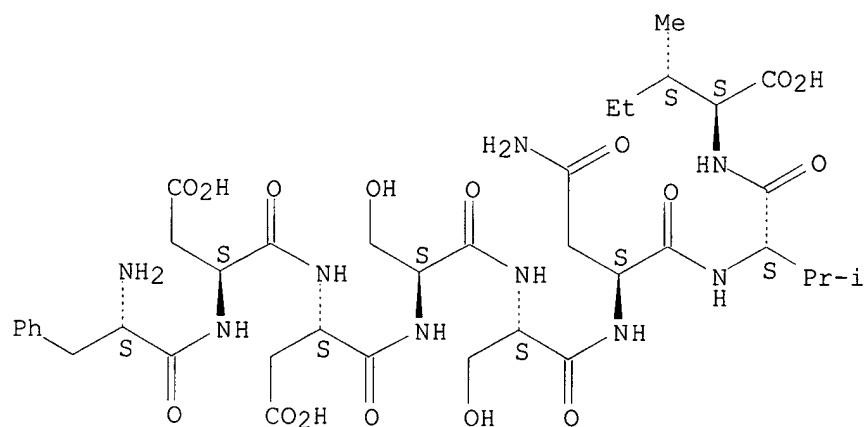
● 3/2 Ca

5255 REFERENCES IN FILE CA (1967 TO DATE)  
 94 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

5263 REFERENCES IN FILE CAPLUS (1967 TO DATE)  
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L6 ANSWER 1 OF 9 REGISTRY COPYRIGHT 2001 ACS  
 RN 186378-43-8 REGISTRY  
 CN L-Isoleucine,  
 L-phenylalanyl-L-.alpha.-aspartyl-L-.alpha.-aspartyl-L-seryl-  
 L-seryl-L-asparaginyl-L-valyl- (9CI) (CA INDEX NAME)  
 OTHER NAMES:  
 CN OP-1 (human finger 2 domain small peptide-contg. fragment)  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 MF C38 H57 N9 O16  
 SR CA  
 LC STN Files: CA, CAPLUS, TOXLIT, USPATFULL

Absolute stereochemistry.



1 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

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PASSWORD:  
TERMINAL (ENTER 1, 2, 3, OR ?):2

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NEWS 1 Web Page URLs for STN Seminar Schedule - N. America  
NEWS 2 Dec 17 The CA Lexicon available in the CAPLUS and CA files  
NEWS 3 Feb 06 Engineering Information Encompass files have new names  
NEWS 4 Feb 16 TOXLINE no longer being updated  
NEWS 5 Apr 23 Search Derwent WPINDEX by chemical structure  
NEWS 6 Apr 23 PRE-1967 REFERENCES NOW SEARCHABLE IN CAPLUS AND CA  
NEWS 7 May 07 DGENE Reload

NEWS EXPRESS April 18 CURRENT WINDOWS VERSION IS V6.0,  
CURRENT MACINTOSH VERSION IS V5.0C (ENG) AND V5.0JB (JP),  
AND CURRENT DISCOVER FILE IS DATED 04/06  
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NEWS INTER General Internet Information  
NEWS LOGIN Welcome Banner and News Items  
NEWS PHONE Direct Dial and Telecommunication Network Access to STN  
NEWS WWW CAS World Wide Web Site (general information)

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=> fil reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.30	0.30

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STRUCTURE FILE UPDATES: 13 MAY 2001 HIGHEST RN 335276-85-2  
DICTIONARY FILE UPDATES: 13 MAY 2001 HIGHEST RN 335276-85-2

TSCA INFORMATION NOW CURRENT THROUGH January 11, 2001

Please note that search-term pricing does apply when

conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT for details.

=> e bmp/cn

E1	1	BMNO/CN
E2	1	BMOO/CN
E3	2 -->	BMP/CN
E4	1	BMP (CORROSION INHIBITOR)/CN
E5	1	BMP (PEPTIDE)/CN
E6	1	BMP 1/CN
E7	1	BMP 10 (MOUSE GENE BMP10 PRECURSOR)/CN
E8	1	BMP 10 (MOUSE GENE BMP10)/CN
E9	1	BMP 2/CN
E10	1	BMP 3/CN
E11	1	BMP 4/CN
E12	1	BMP RECEPTOR IB (DANIO RERIO STRAIN AB)/CN

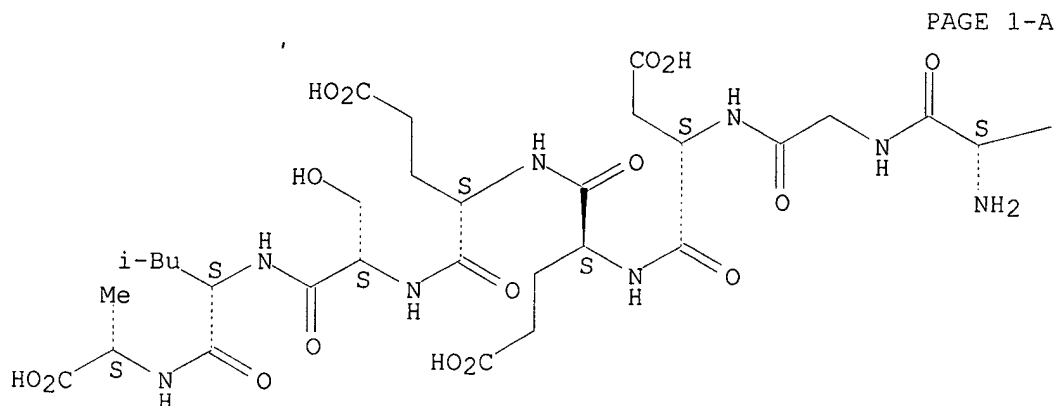
=> s e5

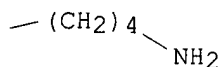
L1 1 "BMP (PEPTIDE)"/CN

=> d l1

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS  
RN 73984-05-1 REGISTRY  
CN L-Alanine, L-lysylglycyl-L-.alpha.-aspartyl-L-.alpha.-glutamyl-L-.alpha.-glutamyl-L-seryl-L-leucyl- (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN L-Alanine, N-[N-[N-[N-[N-(N-L-lysylglycyl)-L-.alpha.-aspartyl]-L-.alpha.-glutamyl]-L-.alpha.-glutamyl]-L-seryl]-L-leucyl]-  
OTHER NAMES:  
CN 242: PN: W00069900 SEQID: 1546 unclaimed sequence  
CN BMP  
CN **BMP (peptide)**  
CN Delicious peptide  
FS PROTEIN SEQUENCE; STEREOSEARCH  
MF C34 H57 N9 O16  
LC STN Files: AGRICOLA, BIOBUSINESS, CA, CAPLUS, CHEMCATS, TOXLIT

Absolute stereochemistry.





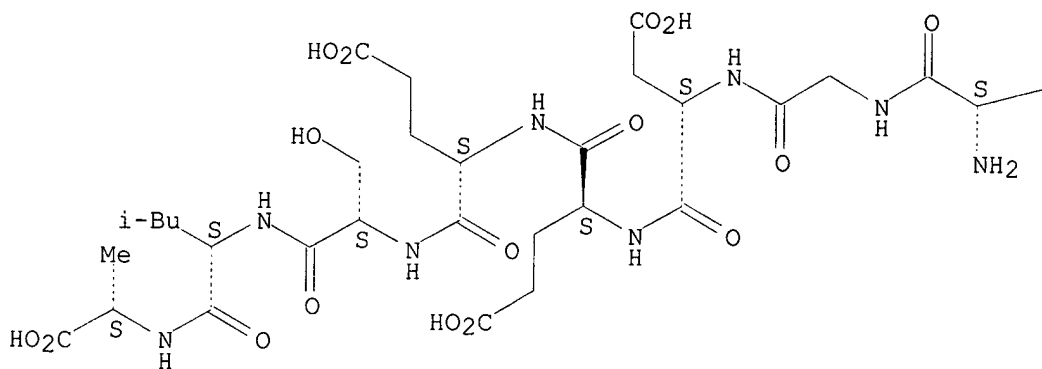
22 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 22 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> d 11

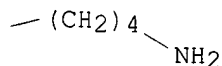
L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS  
 RN 73984-05-1 REGISTRY  
 CN L-Alanine, L-lysylglycyl-L-.alpha.-aspartyl-L-.alpha.-glutamyl-L-.alpha.-glutamyl-L-seryl-L-leucyl- (9CI) (CA INDEX NAME)  
 OTHER CA INDEX NAMES:  
 CN L-Alanine, N-[N-[N-[N-[N-[N-(N-L-lysylglycyl)-L-.alpha.-aspartyl]-L-.alpha.-glutamyl]-L-.alpha.-glutamyl]-L-seryl]-L-leucyl]-  
 OTHER NAMES:  
 CN 242: PN: W00069900 SEQID: 1546 unclaimed sequence  
 CN BMP  
 CN **BMP (peptide)**  
 CN Delicious peptide  
 FS PROTEIN SEQUENCE; STEREOSEARCH  
 MF C34 H57 N9 O16  
 LC STN Files: AGRICOLA, BIOBUSINESS, CA, CAPLUS, CHEMCATS, TOXLIT

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



22 REFERENCES IN FILE CA (1967 TO DATE)  
 1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 22 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> e bmp 2/cn

E1 1 BMP 10 (MOUSE GENE BMP10 PRECURSOR)/CN  
 E2 1 BMP 10 (MOUSE GENE BMP10)/CN  
 E3 1 --> BMP 2/CN  
 E4 1 BMP 3/CN  
 E5 1 BMP 4/CN  
 E6 1 BMP RECEPTOR IB (DANIO RERIO STRAIN AB)/CN  
 E7 1 BMP RECEPTOR KINASE-1/CN  
 E8 1 BMP RECEPTOR KINASE-2/CN  
 E9 1 BMP RECEPTOR KINASE-3/CN  
 E10 1 BMP TYPE II RECEPTOR (XENOPUS LAEVIS CLONE C6 GENE  
 XBMPR-II)  
 /CN  
 E11 1 BMP-2A (CATTLE CLONE .LAMBDA.BP-21 REDUCED)/CN  
 E12 1 BMP-2A (HUMAN FINGER 1 DOMAIN-CONTG. FRAGMENT)/CN

=> s e3

L2 1 "BMP 2"/CN

=> d 12

L2 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS

RN 192509-82-3 REGISTRY

CN 1-Azoniabicyclo[2.2.2]octane,  
 1,1'-[oxybis(methylene)]bis[3-(hydroxyimino)-  
 , diiodide (9CI) (CA INDEX NAME)

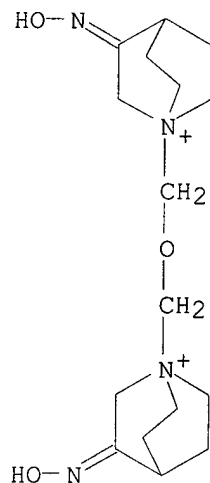
OTHER NAMES:

CN **BMP 2**

MF C16 H28 N4 O3 . 2 I

SR CA

LC STN Files: ADISINSIGHT, BIOSIS, CA, CAPLUS, TOXLIT



● 2 I<sup>-</sup>

1 REFERENCES IN FILE CA (1967 TO DATE)

1 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> e bmp-2/cn

E1 1 BMP RECEPTOR KINASE-3/CN  
 E2 1 BMP TYPE II RECEPTOR (XENOPUS LAEVIS CLONE C6 GENE  
 XBMPR-II)  
 /CN  
 E3 0 --> BMP-2/CN  
 E4 1 BMP-2A (CATTLE CLONE .LAMBDA.BP-21 REDUCED)/CN  
 E5 1 BMP-2A (HUMAN FINGER 1 DOMAIN-CONTG. FRAGMENT)/CN  
 E6 1 BMP-2A (HUMAN FINGER 2 DOMAIN-CONTG. FRAGMENT)/CN  
 E7 1 BMP-2A (HUMAN HEEL DOMAIN-CONTG. FRAGMENT)/CN  
 E8 1 BMP-3 (HUMAN FINGER 1 DOMAIN-CONTG. FRAGMENT)/CN  
 E9 1 BMP-3 (HUMAN FINGER 2 DOMAIN-CONTG. FRAGMENT)/CN  
 E10 1 BMP-3 (HUMAN HEEL DOMAIN-CONTG. FRAGMENT)/CN  
 E11 1 BMP-4 (HUMAN FINGER 1 DOMAIN-CONTG. FRAGMENT)/CN  
 E12 1 BMP-4 (HUMAN FINGER 2 DOMAIN-CONTG. FRAGMENT)/CN

=> s e5

L3 1 "BMP-2A (HUMAN FINGER 1 DOMAIN-CONTG. FRAGMENT)"/CN

=> e hyaluronic/cn

E1 1 HYALURONATE SYNTHASE PX01-93 (BACILLUS ANTHRACIS STRAIN  
 STER  
 NE PLASMID PX01)/CN  
 E2 1 HYALURONATE SYNTHETASE/CN  
 E3 0 --> HYALURONIC/CN  
 E4 1 HYALURONIC ACID/CN  
 E5 1 HYALURONIC ACID .BETA.-PHENYLETHYL ESTER/CN  
 E6 1 HYALURONIC ACID 2,6-DICHLOROBENZYL ESTER/CN  
 E7 1 HYALURONIC ACID 3,4,5-TRIMETHOXYBENZYL ESTER/CN  
 E8 1 HYALURONIC ACID 4-TERBUTYLBENZYL ESTER/CN  
 E9 1 HYALURONIC ACID BENZYL ARACHIDYL ESTER/CN  
 E10 1 HYALURONIC ACID BENZYL DOCOSANYL ESTER/CN  
 E11 1 HYALURONIC ACID BENZYL ESTER/CN  
 E12 1 HYALURONIC ACID BENZYL LAURYL ESTER/CN

=> s e4

L4 1 "HYALURONIC ACID"/CN

=> s phosphate/cn

L5 1 PHOSPHATE/CN

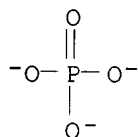
=> e phosphate/cn

E1 1 PHOSPHATASE/KINASE (CHLAMYDIA PNEUMONIAE STRAIN J138 GENE  
 YA  
 CE)/CN  
 E2 1 PHOSPHATASE/KINASE (CHLAMYDIA TRACHOMATIS GENE YACE)/CN  
 E3 1 --> PHOSPHATE/CN  
 E4 1 PHOSPHATE (32PO4)/CN  
 E5 1 PHOSPHATE (H2PO4-)/CN  
 E6 1 PHOSPHATE (H2PO41-)/CN  
 E7 1 PHOSPHATE (HPO42-)/CN  
 E8 1 PHOSPHATE (P2O74-)/CN  
 E9 1 PHOSPHATE (P4O123-)/CN  
 E10 1 PHOSPHATE (P4O136-), (OC-6-11)-HEXAAMMINECOBALT(3+)  
 (1:2)/CN  
 E11 1 PHOSPHATE (P4O136-), (OC-6-11)-HEXAAMMINECOBALT(3+) (1:2),  
 T  
 RIHYDRATE/CN  
 E12 1 PHOSPHATE (P5O143-)/CN

=> d 15



L5 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2001 ACS  
 RN 14265-44-2 REGISTRY  
 CN **Phosphate (8CI, 9CI)** (CA INDEX NAME)  
 OTHER NAMES:  
 CN Orthophosphate  
 CN Orthophosphate (PO43-)  
 CN Orthophosphate(3-)  
 CN Phosphate (PO43-)  
 CN Phosphate anion(3-)  
 CN Phosphate ion (PO43-)  
 CN Phosphate ion(3-)  
 CN Phosphate trianion  
 CN Phosphate(3-)  
 CN Phosphoric acid, ion(3-)  
 FS 3D CONCORD  
 DR 264888-19-9  
 MF 04 P  
 CI COM  
 LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,  
 CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM, CSNB,  
 DDFU, DRUGU, EMBASE, GMELIN\*, IFICDB, IFIPAT, IFIUDB, IPA, NIOSHTIC,  
 PIRA, PROMT, TOXLINE, TOXLIT, TULSA, ULIDAT, USPATFULL, VETU, VTB  
 (\*File contains numerically searchable property data)  
 Other Sources: NDSL\*\*, TSCA\*\*  
 (\*\*Enter CHEMLIST File for up-to-date regulatory information)



30877 REFERENCES IN FILE CA (1967 TO DATE)  
 254 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA  
 30896 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> f .genbiotech toxlit txline

0 GENBIOTECH  
 0 TOXLIT  
 0 TXLINE  
 L6 0 .GENBIOTECH TOXLIT TXLINE  
 (GENBIOTECH (W) TOXLIT (W) TXLINE)

=> f .genbiotech toxlit toxline

0 GENBIOTECH  
 0 TOXLIT  
 0 TOXLINE  
 L7 0 .GENBIOTECH TOXLIT TOXLINE  
 (GENBIOTECH (W) TOXLIT (W) TOXLINE)

=> fil .genbiotech toxlit toxline

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	50.90	51.20

FILE 'MEDLINE' ENTERED AT 14:56:06 ON 14 MAY 2001

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FILE 'TOXLIT' ENTERED AT 14:56:06 ON 14 MAY 2001

FILE 'TOXLINE' ENTERED AT 14:56:06 ON 14 MAY 2001

=> s 13 or ((osteogenic or bone) (2a) protein) or bmp or op or op-1 or opl

3 FILES SEARCHED...

6 FILES SEARCHED...

8 FILES SEARCHED...

L8 63570 L3 OR ((OSTEOGENIC OR BONE) (2A) PROTEIN) OR BMP OR OP OR OP-1  
OR OPI

=> s 14 or hyaluron? or acp or luronit or mucoitin

8 FILES SEARCHED...

L9 79048 L4 OR HYALURON? OR ACP OR LURONIT OR MUCOITIN

=> s 15 or orthophosphate or phosphate or phosphoric

7 FILES SEARCHED...

L10 1229074 L5 OR ORTHOPHOSPHATE OR PHOSPHATE OR PHOSPHORIC

=> s 18 and 19 and 110

L11 38 L8 AND L9 AND L10

=> dup rem l11

PROCESSING COMPLETED FOR L11

L12 32 DUP REM L11 (6 DUPLICATES REMOVED)

=> s l12 bib abs 1-

MISSING OPERATOR L12 BIB

The search profile that was entered contains terms or  
nested terms that are not separated by a logical operator.

=> d l12 bib abs 1-

YOU HAVE REQUESTED DATA FROM 32 ANSWERS - CONTINUE? Y/(N):y

L12 ANSWER 1 OF 32 CAPLUS COPYRIGHT 2001 ACS

AN 2001:300558 CAPLUS

DN 134:300839

TI Formulations of **hyaluronic** acid for delivery of  
**osteogenic proteins**

IN Kim, Hyun; Li, Rebecca; Pavesio, Alessandra; Callegaro, Lanfranco  
PA Genetics Institute, Inc., USA; Fidia Advanced Biology  
SO PCT Int. Appl., 20 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001028602	A1	20010426	WO 2000-US28468	20001013
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

PRAI US 1999-159674 P 19991015  
US 2000-185587 P 20000228

AB An injectable formulation is disclosed for delivery of **osteogenic proteins**. The formulation comprises a pharmaceutically acceptable admixt. of an **osteogenic protein**; and formulations comprising **osteogenic protein, hyaluronic acid** derivs. and tricalcium **phosphate** are also disclosed. Methods for formulating porous injectable gels and pastes from **hyaluronic acid** are also disclosed. Hyaff-11p80 was solubilized in N-methylpyrrolidinone, then mixed with rhBMP-2-contg. buffer (0.1 mg/mL) followed by addn. of various pore formers (like sodium bicarbonate) and tricalcium **phosphate**. In vitro release kinetics of the rhBMP-2 was studied.

RE.CNT 6

RE

- (1) Callegaro, L; WO 9320858 A 1993 CAPLUS
- (2) Callegaro, L; WO 9749412 A 1997 CAPLUS
- (3) Callegaro, L; WO 9924070 A 1999 CAPLUS
- (5) Univ Brown Res Found; WO 9745532 A 1997 CAPLUS
- (6) Univ Florida; WO 9117777 A 1991 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 32 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 2001-202687 [20] WPIDS

DNN N2001-144640 DNC C2001-060149

TI Delivery of agents into targeted tissue, particularly cardiac tissue comprises a flowable substance containing a number of small particles.

DC A96 B05 B07 P31

IN EVANS, D G; HOGANSON, D M; NASH, J E

PA (KENS-N) KENSEY NASH CORP

CYC 94

PI WO 2001010313 A1 20010215 (200120)\* EN

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

ADT WO 2001010313 A1 WO 2000-US20525 20000728

PRAI US 1999-368410 19990805

AN 2001-202687 [20] WPIDS

AB WO 200110313 A UPAB: 20010410

NOVELTY - A system (I) for delivering agents into a targeted internal tissue comprising a delivery instrument (II) and a flowable agent (III) containing a number of small particles for introduction into the tissue, where (II) is arranged to introduce (III) at or adjacent the tissue by

imparting a force to (III) which enters the tissue at an entry sinus, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for (I) for vascularizing cardiac tissue to cause the formation of lumens in communication with the patient's arterial system and treating cardiac tissue to affect the conduction of electrical signals or nerve signals in the cardiac tissue.

USE - For delivering agents into targeted tissue, particularly cardiac tissue (claimed).

ADVANTAGE - The local intra-tissue delivery of the flowable agent is more efficient than previous systems for delivery of medications to the heart, i.e. systemically by vein or regionally, e.g. intracoronary infusion.

Dwg.0/22

L12 ANSWER 3 OF 32 TOXLIT  
AN 2001:15957 TOXLIT  
DN CA-134-300839W  
TI Formulations of **hyaluronic acid** for delivery of **osteogenic proteins**.  
AU Kim H; Li R; Pavesio A; Callegaro L  
SO (2001). PCT Int. Appl. PATENT NO. 0128602 04/26/2001 (Fidia Advanced Biology).  
CODEN: PIXXD2.  
CY UNITED STATES  
DT Patent  
FS CA  
LA English  
OS CA 134:300839  
EM 200105  
AB An injectable formulation is disclosed for delivery of **osteogenic proteins**. The formulation comprises a pharmaceutically acceptable admixt. of an **osteogenic protein**; and formulations comprising **osteogenic protein, hyaluronic acid** derivs. and tricalcium **phosphate** are also disclosed. Methods for formulating porous injectable gels and pastes from **hyaluronic acid** are also disclosed. Hyaff-11p80 was solubilized in N-methylpyrrolidinone, then mixed with RhBMP-2-contg. buffer (0.1 mg/mL) followed by addn. of various pore formers (like sodium bicarbonate) and tricalcium **phosphate**. In vitro release kinetics of the rhBMP-2 was studied.

L12 ANSWER 4 OF 32 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 1  
AN 2000:880973 CAPLUS  
DN 134:33046  
TI Bone graft substitute composition containing calcium sulfate  
IN Petersen, Don; Haggard, Warren O.; Randolph, Don; Hagan, Cary  
PA Wright Medical Technology, Inc., USA  
SO PCT Int. Appl., 20 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 2000074690	A1	20001214	WO 2000-US2780	20000202
	W: AU, CA, JP				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

PRAI US 1999-327761 A 19990607

AB A bone graft substitute compn. comprising calcium sulfate; a mixing soln. selected from the group consisting of sterile water, sodium chloride, **phosphate** buffered saline, potassium chloride, and sodium sulfate; and a plasticizing substance selected from the group consisting of CM-cellulose, polyvinyl alc., Me cellulose, and hydroxypropyl Me cellulose. For example, an injectable bone graft substance compn. was

prepd. contg. (by wt.) 100 parts of CaSO<sub>4</sub> (as hemihydrate), 11.1 parts of CM-cellulose, 69.4 parts of demineralized bone matrix, and 162 parts of sterile water. The compn. was well tolerated by the bone and healed a large medullary defect 30-100% at 6 wk with viable new bone in a canine model.

RE.CNT 3

RE

- (1) Biocoll Laboratories Inc; WO 9639203 A1 1996 CAPLUS
- (2) O'Leary; US 5484601 A 1996
- (3) Yim; US 5385887 A 1995 CAPLUS

L12 ANSWER 5 OF 32 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 2

AN 2000:861445 CAPLUS

DN 134:21514

TI Implant for application in bone, method for producing such an implant, and

use of such an implant

IN Hall, Jan

PA Nobel Biocare AB (Publ), Swed.

SO PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000072775	A1	20001207	WO 2000-SE1022	20000519
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			

SE 9901973

A

20001201

SE 1999-1973

19990531

PRAI SE 1999-1973 A 19990531

AB An implant for application in bone, for example the jaw bone, primarily of

the human body, comprises a unit which can be applied in the bone in question and which is made of biocompatible material, preferably titanium.

On its surface parts cooperating with the bone, the unit is provided with a coating (or coatings) of an agent (substance) TS, which initiates and/or

stimulates bone growth. The coating (or coatings) comprises (comprise) calcium **phosphate** compds. CaP and the said stimulating agent TS.

RE.CNT 3

RE

- (1) Matrix Medical B V; EP 0806212 A1 1997 CAPLUS
- (2) Nobel Biocare Ab; WO 9848862 A1 1998 CAPLUS
- (3) Per, I; US 4330891 A 1982

L12 ANSWER 6 OF 32 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 3

AN 2000:84661 CAPLUS

DN 132:127773

TI Calcium **phosphate** and biopolymer for bone reconstruction

IN Larsson, Cecilia; Ljusberg-wahren, Helena

PA Nobel Biocare Ab (Publ), Swed.; Gs Development Ab

SO PCT Int. Appl., 34 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.

KIND DATE

APPLICATION NO. DATE

PI	WO 2000004940	A1	20000203	WO 1999-SE1231	19990706
	W: AE, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, CZ, DE, DE, DK, DK, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG SE 9802529 A 20000214 SE 1998-2529 19980713 AU 9949500 A1 20000214 AU 1999-49500 19990706 EP 1094851 A1 20010502 EP 1999-933447 19990706 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI PRAI SE 1998-2529 A 19980713 WO 1999-SE1231 W 19990706				

AB The invention relates to a prepn. for restoring bone in the body of humans

or animals in connection with an existing structure, a bone implant or some other prosthetic construction, as well as a method for restoring bone. The bone restoring prepn. consists of an easily handleable and controllable prepn. (compn.) of resorbable calcium **phosphate** granules and a carrier of a biopolymer or lipid type. The prepn. is intended to be applied in the position where the bone needs to be replaced, reinforced or built up, esp. in connection with a bone implant or some other prosthetic construction where there is a lack of sufficient bone vol., or where the quality of the bone is too poor to allow a load-carrying function, for example permanent fixing of an implant. A phospholipid (Epikuron 200) was mixed with hydroxylapatite and ethanol. This sample was then freeze-dried to a const. wt. After freeze-drying, the sample had a compn. of phosphatidylcholine 30.1 and hydroxylapatite 69.9%. The wt. ratio between the calcium **phosphate** component and the lipid and the admixt. of water were detd. by the requirement that the prepn. should be easily handleable and moldable.

RE.CNT 6

RE

- (1) Bioapatite, A; SE 464912 B 1991 CAPLUS
- (2) Deibig, H; US 4192021 A 1980 CAPLUS
- (3) HARle, A; US 5769897 A 1998
- (4) Hans-JOrg, B; US 5338772 A 1994
- (6) Ontario Inc; WO 9745147 A1 1997 CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 32 CAPLUS COPYRIGHT 2001 ACS DUPLICATE 4  
 AN 2000:141482 CAPLUS  
 DN 132:185482  
 TI Malleable paste for filling bone defects  
 IN Gertzman, Arthur A.; Sunwoo, Moon Hae  
 PA Musculoskeletal Transplant Foundation, USA  
 SO U.S., 7 pp.  
 CODEN: USXXAM  
 DT Patent  
 LA English  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6030635	A	20000229	US 1998-31750	19980227
AB	The invention is directed toward a malleable bone putty and a flowable				
gel	compn. for application to a bone defect site to promote new bone growth				
at	the site which comprises a new bone growth inducing compd. of				
	demineralized lyophilized allograft bone powder. The bone powder has a				
	particle size ranging from about 100 to about 850 .mu. and is mixed in a				

high mol. wt. hydrogel carrier, the hydrogel component of the carrier ranging from 0.3 to 3.0% of the compn. and having a mol. wt. of about at least 10,000 Daltons. The compn. contains about 25% to about 40% bone powder and can be addnl. provided with **BMP's** and a sodium **phosphate** buffer. A malleable putty of 2% soln. **hyaluronic** acid in isotonic saline with 250-420 .mu. cortical allograft bone powder at 30%. Freeze dried cortical allograft bone (502 mg) of particle size ranging 250-420 .mu. was mixed into 1170 mg of a 2% soln. of sodium **hyaluronate** in isotonic saline. The bone component is added to achieve a bone concn. of 30% (wt./wt.). The soln. was well mixed and allowed to stand for 2-3 h at room temp. to provide a malleable putty with excellent formability properties.

RE.CNT 20

RE

- (1) Chen; US 5707962 1998 CAPLUS
- (4) Fitenmuller; US 4610692 1986 CAPLUS
- (5) Hayes; US 4619995 1986 CAPLUS
- (7) John; US 4595713 1986 CAPLUS
- (16) Sasaki; Stimulation of Osteoinduction in Bone Wound Healing by High-Molecular Hyaluronic Acid Bond 1995, V16(1) CAPLUS

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 8 OF 32 CAPLUS COPYRIGHT 2001 ACS

AN 2000:98312 CAPLUS

DN 132:146657

TI Use of creatine compounds for treatment of bone or cartilage cells and tissues

IN Wallimann, Theo; Gerber, Isabel

PA Synergen A.-G., Switz.; Ao-Forschungsinstitut Davos

SO PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000006150	A1	20000210	WO 1998-EP4713	19980728
	W: CA, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

OS MARPAT 132:146657

AB The method, compn. and use of the compn. for healing defects in bone or cartilage tissue in animals and humans caused by trauma or surgery is disclosed. The method comprises administration of creatine compds. including analogs or pharmaceutically acceptable salts thereof.

Treatment

in accordance with this method speeds-up time for and improves the process

of healing of defects in bone or cartilage tissue in animals and humans caused by trauma or surgery including acceptance and bonding of

artificial

implants. The treatment with creatine compds. can be therapeutic for diseased patients, preventive for healthy people as well as geriatric for elderly people. Creatine stimulated the metabolic activity of rat osteoblasts from the second week onwards. Creatine-treated groups also had significantly more mineralization than the control at two weeks.

RE.CNT 3

RE

- (1) Bruce, R; WO 9745533 A 1997 CAPLUS
- (2) Nutricia Nv; EP 0891719 A 1999 CAPLUS
- (3) Somjensomjen, D; STEROIDS: STRUCTURE, FUNCTION, AND REGULATION 1998, V63(5-6), P340

L12 ANSWER 9 OF 32 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 2000-532868 [48] WPIDS

DNN N2000-394155 DNC C2000-158767

TI Osteogenic paste useful for bone repair in mammals, especially for spinal fusions comprises resorbable carrier, osteogenic factor and mineral particles to provide scaffold.

DC B04 D22 P34

IN MCKAY, W F

PA (SDGI-N) SDGI HOLDINGS INC

CYC 90

PI WO 2000045870 A1 20000810 (200048)\* EN 36p

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
OA PT SD SE SL SZ TZ UG ZW

W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES  
FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS  
LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL  
TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW

AU 2000027564 A 20000825 (200059)

ADT WO 2000045870 A1 WO 2000-US3024 20000204; AU 2000027564 A AU 2000-27564 20000204

FDT AU 2000027564 A Based on WO 200045870

PRAI US 1999-118614 19990204

AN 2000-532868 [48] WPIDS

AB WO 200045870 A UPAB: 20001001

NOVELTY - Osteogenic paste (A) comprises:

- (i) a resorbable paste carrier (C);
- (ii) osteogenic factor (I) and
- (iii) a porous particulate mineral (II).

At least 20 vol.% of (A), sufficient to provide a scaffold for bone regrowth as (C) is resorbed.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for an osteogenic implant material (A') comprising gelatin as (C), formulated to be fluid at above mammalian body temperature but to undergo transition to the non-fluid state at body temperature, (I), demineralized bone matrix (DBM) and (II) of average particle size 0.05-5 mm at least 20 vol.%.

ACTIVITY - Osteogenic.

MECHANISM OF ACTION - Osteoblast stimulator; osteoclast stimulation.

USE - (A) Is used to induce new bone growth in mammals, particularly primates and specifically humans, i.e. for treating bone trauma, disease or defects and for forming artificial arthrodeses. Especially it is used to create a spinal fusion (interbody, posterolateral or between transverse processes of adjacent vertebrae).

ADVANTAGE - (A) Has increased osteoinductive potential but, despite the rapid resorption of M induced by (I), it retains a reliable scaffold, of (II) particles, for long enough (e.g. 6-8 weeks) for formation of new bone. (A) is especially effective in bones with only low or moderate vascularization. The paste can be formed into preselected shapes before implantation, or during surgery, and retains its dimensional stability.

The following samples (0.05 ml) were implanted into the rectus abdominus muscle of rats: (1) demineralized bone matrix (DBM) only; (2) Helistat (RTM for absorbable collagen sponge) containing 0.004 mg of recombinant human **bone morphogenetic protein-2** (I'); (3) a gelatin/DBM paste, and (4) as (3) but including 0.001 mg (I'). Periodically implants were analyzed. Incorporation of (I'), in (4), resulted in higher, and earlier, alkaline phosphatase activity (indicating infiltration by osteoinductive cells) and better calcification (indicative of bone formation). Higher levels of (I') (0.002 mg) stimulated resorption of the collagen matrix, leading to loss of osteogenic potential.

Dwg.0/2

L12 ANSWER 10 OF 32 WPIDS COPYRIGHT 2001 DERWENT INFORMATION LTD

AN 2000-507223 [46] WPIDS

DNC C2000-152167

TI Composition containing hydrophobically modified hedgehog protein, useful



for inducing repair of e.g. bone and cartilage, formulated with biodegradable protein carrier.

DC B04  
 IN LANG, K; PAPADIMITRIOU, A  
 PA (HOFF) ROCHE DIAGNOSTICS GMBH  
 CYC 91  
 PI EP 1025861 A1 20000809 (200046)\* DE 14p  
 R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT  
 RO SE SI  
 WO 2000045848 A1 20000810 (200046) EN  
 RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL  
 OA PT SD SE SL SZ TZ UG ZW  
 W: AE AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM EE ES  
 FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS  
 LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL  
 TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW  
 AU 2000024412 A 20000825 (200059)  
 ADT EP 1025861 A1 EP 1999-101643 19990204; WO 2000045848 A1 WO 2000-EP847  
 20000203; AU 2000024412 A AU 2000-24412 20000203  
 FDT AU 2000024412 A Based on WO 200045848  
 PRAI EP 1999-101643 19990204  
 AN 2000-507223 [46] WPIDS  
 AB EP 1025861 A UPAB: 20000921  
 NOVELTY - A pharmaceutical composition (A) comprises a hydrophobically modified hedgehog protein (I) and, as carrier, a biodegradable protein (II).  
 DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:  
 (1) a method for preparing (A); and  
 (2) a method for sustained release of (I) in the human body by administration of (A).  
 ACTIVITY - Osteogenic; chondrogenic; neurological.  
 MECHANISM OF ACTION - (I) promote the activity and/or expression of alkaline phosphatase.  
 USE - (A) are particularly used for repair of bone and cartilage defects but can also be used for repairing neuronal defects and for systemic delivery of (I).  
 ADVANTAGE - (II) reversibly bind to (I) in its active, folded form and releases it, locally in vivo, in its active state, especially over a period of at least 14 hr. (A) do not induce immunogenic or inflammatory reactions. Lipophilic modification of (I) improves interaction with the lipid membrane of eukaryotic cells.  
 Dwg.0/2

L12 ANSWER 11 OF 32 TOXLIT  
 AN 2000:7320 TOXLIT  
 DN CA-132-185482U  
 TI Malleable paste for filling bone defects.  
 AU Gertzman AA; Sunwoo MH  
 SO (2000). U.S. PATENT NO. 6030635 02/29/2000 (Musculoskeletal Transplant Foundation).  
 CODEN: USXXAM.  
 CY UNITED STATES  
 DT Patent  
 FS CA  
 LA English  
 OS CA 132:185482  
 EM 200003  
 AB The invention is directed toward a malleable bone putty and a flowable gel  
 at compn. for application to a bone defect site to promote new bone growth  
 the site which comprises a new bone growth inducing compd. of demineralized lyophilized allograft bone powder. The bone powder has a particle size ranging from about 100 to about 850 .mu. and is mixed in a high mol. wt. hydrogel carrier, the hydrogel component of the carrier ranging from 0.3 to 3.0% of the compn. and having a mol. wt. of about at

least 10,000 Daltons. The compn. contains about 25% to about 40% bone powder and can be addnl. provided with **BMP's** and a sodium **phosphate** buffer. A malleable putty of 2% soln. **hyaluronic acid** in isotonic saline with 250-420 .mu. cortical allograft bone powder at 30%. Freeze dried cortical allograft bone (502 mg) of particle size ranging 250-420 .mu. was mixed into 1170 mg of a 2% soln. of sodium **hyaluronate** in isotonic saline. The bone component is added to achieve a bone concn. of 30% (wt./wt.). The soln. was well mixed and allowed to stand for 2-3 h at room temp. to provide a malleable putty with excellent formability properties.

L12 ANSWER 12 OF 32 CAPLUS COPYRIGHT 2001 ACS  
AN 2000:672409 CAPLUS  
DN 134:168254  
TI Injectable **hyaluronic acid/tricalcium phosphate** composites for the delivery of rhBMP-2  
AU Kim, H. D.; Li, R.; Augusta, D. A. D'; Boussein, M.; Blake, C.; Luppen, C.; Seeherman, H.; Wozney, J. M.  
CS Genetics Institute, Inc., Andover, MA, 01810, USA  
SO Proc. Int. Symp. Controlled Release Bioact. Mater. (2000), 27th, 978-979  
CODEN: PCRMEY; ISSN: 1022-0178  
PB Controlled Release Society, Inc.  
DT Journal  
LA English  
AB Addn. of tricalcium **phosphate** (TCP) to partial or full esters of **hyaluronic acid** injectable carriers enhanced retention of rhBMP-2 in vitro. Retention of rhBMP-2 in vivo at the local fracture site was enhanced when delivered in **hyaluronic acid/TCP** blends compared to buffer delivery. Partial esters of **hyaluronic acid** and their blends with TCP enhanced fracture repair compared to control limbs in the rabbit model.

L12 ANSWER 13 OF 32 MEDLINE  
AN 2000106511 MEDLINE  
DN 20106511 PubMed ID: 10643717  
TI **Osteogenic protein 1** stimulates cells-associated matrix assembly by normal human articular chondrocytes: up-regulation of **hyaluronan** synthase, CD44, and aggrecan.  
AU Nishida Y; Knudson C B; Eger W; Kuettner K E; Knudson W  
CS Rush Medical College, Rush-Presbyterian-St. Luke's Medical Center, Chicago, Illinois 60612, USA.  
NC P50-AR-39239 (NIAMS)  
R01-AR-39507 (NIAMS)  
R01-AR-43384 (NIAMS)  
SO ARTHRITIS AND RHEUMATISM, (2000 Jan) 43 (1) 206-14.  
Journal code: 90M; 0370605. ISSN: 0004-3591.  
CY United States  
DT Journal; Article; (JOURNAL ARTICLE)  
LA English  
FS Abridged Index Medicus Journals; Priority Journals  
EM 200002  
ED Entered STN: 20000209  
Last Updated on STN: 20000209  
Entered Medline: 20000203  
AB OBJECTIVE: To determine the effects of **osteogenic protein 1** (OP-1) on **hyaluronan** (HA), CD44, and aggrecan biosynthesis as well as the contribution of these molecules in promoting matrix assembly by human articular chondrocytes. METHODS: Normal human chondrocytes were cultured with or without OP-1 treatment. Changes in the relative expression of messenger RNA (mRNA) for HA synthases 2 and 3 (HAS-2 and HAS-3), CD44, and aggrecan were determined by competitive quantitative reverse transcriptase-polymerase chain reaction. Accumulation of HA was characterized by indirect staining, CD44 by flow cytometry, and aggrecan

biosynthesis by 35S04 incorporation. RESULTS: OP-1 stimulated the expression of HAS-2, CD44, and aggrecan mRNA in a time-dependent manner, resulting in increased expression of HA, CD44, and aggrecan. Prominent increases in HA-rich cell-associated matrices were also observed. CONCLUSION: OP-1 stimulates not only the synthesis of matrix macromolecules such as aggrecan, but also the synthesis of other molecules required for matrix retention, namely, HA

and

CD44.

L12 ANSWER 14 OF 32 BIOSIS COPYRIGHT 2001 BIOSIS

AN 2000:288137 BIOSIS

DN PREV200000288137

TI The importance of drug delivery systems in tissue engineering.

AU Tabata, Yasuhiko

SO Pharmaceutical Science & Technology Today, (March, 2000) Vol. 3, No. 3, pp. 80-89. print..

ISSN: 1461-5347.

DT Article

LA English

SL English

AB Tissue engineering is designed to regenerate natural tissues or to create biological substitutes for defective or lost tissues and organs through the use of cells. In addition to cells and their scaffolds, growth

factors

are required to promote tissue regeneration. Indeed, growth

factor-induced

vascularization is effective in supplying the oxygen and nutrients necessary for the survival of transplanted cells in organ substitution. However, growth factors have poor in vivo stability and so the biological effects are often unpredictable unless the delivery system is contrived. This review provides several examples to emphasize the importance of drug delivery systems in tissue engineering.

L12 ANSWER 15 OF 32 CAPLUS COPYRIGHT 2001 ACS

AN 1999:795994 CAPLUS

DN 132:31744

TI Gene probes used for genetic profiling in healthcare screening and planning

IN Roberts, Gareth Wyn

PA Genostic Pharma Ltd., UK

SO PCT Int. Appl., 745 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9964627	A2	19991216	WO 1999-GB1780	19990604
	W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
PRAI	GB 1998-12099	A	19980606		
	GB 1998-13291	A	19980620		
	GB 1998-13611	A	19980624		
	GB 1998-13835	A	19980627		
	GB 1998-14110	A	19980701		
	GB 1998-14580	A	19980707		
	GB 1998-15438	A	19980716		
	GB 1998-15574	A	19980718		

GB 1998-15576	A	19980718
GB 1998-16085	A	19980724
GB 1998-16086	A	19980724
GB 1998-16921	A	19980805
GB 1998-17097	A	19980807
GB 1998-17200	A	19980808
GB 1998-17632	A	19980814
GB 1998-17943	A	19980819

AB There is considerable evidence that significant factor underlying the individual variability in response to disease, therapy and prognosis lies in a person's genetic make-up. There have been numerous examples relating

that polymorphisms within a given gene can alter the functionality of the protein encoded by that gene thus leading to a variable physiol. response.

In order to bring about the integration of genomics into medical practice and enable design and building of a technol. platform which will enable the everyday practice of mol. medicine a way must be invented for the DNA sequence data to be aligned with the identification of genes central to the induction, development, progression and outcome of disease or physiol.

states of interest. According to the invention, the no. of genes and their configurations (mutations and polymorphisms) needed to be identified

in order to provide crit. clin. information concerning individual prognosis is considerably less than the 100,000 thought to comprise the human genome. The identification of the identity of the core group of genes enables the invention of a design for genetic profiling

technologies

which comprises of the identification of the core group of genes and their

sequence variants required to provide a broad base of clin. prognostic information - "genostics". The "Genostic.RTM." profiling of patients and persons will radically enhance the ability of clinicians, healthcare professionals and other parties to plan and manage healthcare provision and the targeting of appropriate healthcare resources to those deemed

most

in need. The use of this invention could also lead to a host of new applications for such profiling technologies, such as identification of persons with particular work or environment related risk, selection of applicants for employment, training or specific opportunities or for the enhancing of the planning and organization of health services, education services and social services.

L12 ANSWER 16 OF 32 CAPLUS COPYRIGHT 2001 ACS

AN 1999:795993 CAPLUS

DN 132:31743

TI Gene probes used for genetic profiling in healthcare screening and planning

IN Roberts, Gareth Wyn

PA Genostic Pharma Limited, UK

SO PCT Int. Appl., 149 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	WO 9964626	A2	19991216	WO 1999-GB1779	19990604
	W:		AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
	RW:		GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK,		

ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG,  
CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

AU 9941586 A1 19991230 AU 1999-41586 19990604  
AU 9941587 A1 19991230 AU 1999-41587 19990604  
GB 2339200 A1 20000119 GB 1999-12914 19990604  
EP 1084273 A1 20010321 EP 1999-925207 19990604

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
IE, FI

PRAI GB 1998-12098 A 19980606  
GB 1998-28289 A 19981223  
GB 1998-16086 A 19980724  
GB 1998-16921 A 19980805  
GB 1998-17097 A 19980807  
GB 1998-17200 A 19980808  
GB 1998-17632 A 19980814  
GB 1998-17943 A 19980819  
WO 1999-GB1779 W 19990604

AB There is considerable evidence that significant factor underlying the  
individual variability in response to disease, therapy and prognosis lies  
in a person's genetic make-up. There have been numerous examples  
relating  
that polymorphisms within a given gene can alter the functionality of the  
protein encoded by that gene thus leading to a variable physiol.  
response.  
In order to bring about the integration of genomics into medical practice  
and enable design and building of a technol. platform which will enable  
the everyday practice of mol. medicine a way must be invented for the DNA  
sequence data to be aligned with the identification of genes central to  
the induction, development, progression and outcome of disease or  
physiol.  
states of interest. According to the invention, the no. of genes and  
their configurations (mutations and polymorphisms) needed to be  
identified  
in order to provide crit. clin. information concerning individual  
prognosis is considerably less than the 100,000 thought to comprise the  
human genome. The identification of the identity of the core group of  
genes enables the invention of a design for genetic profiling  
technologies.

L12 ANSWER 17 OF 32 CAPLUS COPYRIGHT 2001 ACS  
AN 1999:64926 CAPLUS  
DN 130:134991  
TI Xenopus WA545 protein compositions and their function in induction of  
mesodermal or related tissue formation  
IN Lavallie, Edward R.; Racie, Lisa A.; Sive, Hazel; Sun, Benjamin  
PA Genetics Institute, Inc., USA; The Whitehead Institute for Biomedical  
Research  
SO PCT Int. Appl., 74 pp.  
CODEN: PIXXD2  
DT Patent  
LA English  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9902678	A1	19990121	WO 1998-US8334	19980424
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9871597	A1	19990208	AU 1998-71597	19980424
EP 998558	A1	20000510	EP 1998-918722	19980424
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,				

IE, FI  
 PRAI US 1997-890918 19970710  
 WO 1998-US8334 19980424  
 AB Purified Xenopus WA545 proteins and processes for producing them are disclosed. A cDNA clone encoding the full-length WA545 proteins are also disclosed. WA545 is expressed from late blastula throughout the mesoderm and endoderm. It is later expressed in posterior mesoderm. Is is able to efficiently induce posterior and lateral mesoderm, including muscle. Thus, WA545 may be involved in formation of posterior regions and may be useful for ectopic activation of muscle and spinal cord development. The proteins, members of the TGF-.beta. superfamily of growth factors, may be used to induce, enhance and/or inhibit the information, growth, proliferation, differentiation, maintenance of mesodermal tissue, including neural and muscle tissue. The proteins may also be useful for treatment of bone and cartilage and/or other connective tissue defects and in wound healing and related tissue repair.

RE.CNT 4

RE

- (1) Creative Biomolecules Inc; WO 9406449 A 1994 CAPLUS
- (2) Dale, L; Embo Journal 1993, V12(12), P4471 CAPLUS
- (3) Jacobs, K; US 5536637 A 1996 CAPLUS
- (4) Weeks, D; Cell 1987, V51, P861 CAPLUS

L12 ANSWER 18 OF 32 CAPLUS COPYRIGHT 2001 ACS

AN 1999:772568 CAPLUS

DN 132:15641

TI Ophthalmologic eye lotions containing polymers with side-chains of phosphorylcholine analogs

IN Miyazaki, Takeshi; Nakata, Shinji; Ando, Ryota; Nakabayashi, Nobuo; Ishihara, Kazuhiko

PA Nippon Oil and Fats Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11335301	A2	19991207	JP 1998-139798	19980521
AB	The side chains are -OP(:O)(O-)O(CH <sub>2</sub> ) <sub>m</sub> N-R <sub>1</sub> R <sub>2</sub> R <sub>3</sub> where R <sub>1</sub> , R <sub>2</sub> , and R <sub>3</sub> = H C1-4 alkyl; m = 2-4. Pharmaceutical active agents with the polymer in eye lotions applied to the eye remain on the surface of the cornea for a long period.				

L12 ANSWER 19 OF 32 MEDLINE

AN 1999069840 MEDLINE

DN 99069840 PubMed ID: 9852738

TI Osteotransductive bone cements.

AU Driessens F C; Planell J A; Boltong M G; Khairoun I; Ginebra M P

CS Department of Materials Science and Metallurgy, Universitat Politecnica de Catalunya, Barcelona, Spain.

SO PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS. PART H, JOURNAL OF

ENGINEERING IN MEDICINE, (1998) 212 (6) 427-35.

Journal code: ABJ; 8908934. ISSN: 0954-4119.

CY ENGLAND: United Kingdom

DT Journal; Article; (JOURNAL ARTICLE)

LA English

FS Priority Journals

EM 199901

ED Entered STN: 19990115

Last Updated on STN: 19990115

Entered Medline: 19990104

AB Calcium **phosphate** bone cements (CPBCs) are osteotransductive, i.e. after implantation in bone they are transformed into new bone tissue.

Furthermore, due to the fact that they are mouldable, their osteointegration is immediate. Their chemistry has been established previously. Some CPBCs contain amorphous calcium **phosphate** (ACP) and set by a sol-gel transition. The others are crystalline and can give as the reaction product dicalcium **phosphate** dihydrate (DCPD), calcium-deficient hydroxyapatite (CDHA), carbonated apatite (CA) or hydroxyapatite (HA). Mixed-type gypsum-DCPD cements are also described. In vivo rates of osteotransduction vary as follows: gypsum-DCPD > DCPD > CDHA approximately CA > HA. The osteotransduction of CDHA-type cements may be increased by adding dicalcium **phosphate** anhydrous (DCP) and/or CaCO<sub>3</sub> to the cement powder. CPBCs can be used for healing of bone defects, bone augmentation and bone reconstruction. Incorporation of drugs like antibiotics and **bone** morphogenetic **protein** is envisaged. Load-bearing applications are allowed for CHDA-type, CA-type and HA-type CPBCs as they have a higher compressive strength than human trabecular bone (10 MPa).

L12 ANSWER 20 OF 32 CAPLUS COPYRIGHT 2001 ACS

AN 1999:313175 CAPLUS

DN 130:316664

TI Biologically active material and process for its preparation

IN Vanis, Matej; Bakos, Dusan; Vanis, Peter; Makai, Frantisek; Macho, Vendelin

PA Chemickotechnologicka Fakulta Stu, Slovakia

SO Czech Rep., 7 pp.

CODEN: CZXXED

DT Patent

LA Czech

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	CZ 283073	B6	19971217	CZ 1992-3295	19921103

AB The prepn. of bioactive ossifying material suitable for bone implants in reconstructive surgery is described. The prepn. contains Ca **phosphate** and/or Ca fluorophosphate particles 0.1-0.6 mm mixed with atelocollagen I in mass ratios of 1.5:1 to 50:1. Atelocollagen I can be prepd. by enzymic hydrolysis of bovine tendons. The prepn. can further contain 0.01-5.0% **hyaluronic** acid or its salts (related to material dry matter), 1-20% **bone** morphogenetic **proteins** extd. from bovine bones, and adjuvants components (blood, blood plasma, artificial body fluids). During prepn. the components are homogenized together. The formed ppt. is formed into desired implant shape or dried and powd. The material is sterilized by .gamma.-radiation. Before use the powd. material is reconstituted with physiol. fluids and formed into desired shapes. The biol. compatibility was tested in dogs with exptl. tibial bone injury.

L12 ANSWER 21 OF 32 TOXLIT

AN 1997:166800 TOXLIT

DN CA-130-316664P

TI Biologically active material and process for its preparation.

AU Vanis M; Bakos D; Vanis P; Makai F; Macho V

SO (1997). Czech Rep. PATENT NO. 283073 12/17/1997 (Chemickotechnologicka Fakulta Stu).

CODEN: CZXXED.

CY SLOVAKIA

DT Patent

FS CA

LA Czech

OS CA 130:316664

EM 199905

AB The prepn. of bioactive ossifying material suitable for bone implants in reconstructive surgery is described. The prepn. contains Ca **phosphate** and/or Ca fluorophosphate particles 0.1-0.6 mm mixed with atelocollagen I in mass ratios of 1.5:1 to 50:1. Atelocollagen I can be prepd. by enzymic hydrolysis of bovine tendons. The prepn. can further contain 0.01-5.0% **hyaluronic** acid or its salts (related to material dry matter), 1-20% **bone** morphogenetic **proteins** extd. from bovine bones, and adjuvants components (blood, blood plasma, artificial body fluids). During prepn. the components are homogenized together. The formed ppt. is formed into desired implant shape or dried and powd. The material is sterilized by .gamma.-radiation. Before use the powd. material is reconstituted with physiol. fluids and formed into desired shapes. The biol. compatibility was tested in dogs with exptl. tibial bone injury.

L12 ANSWER 22 OF 32 CAPLUS COPYRIGHT 2001 ACS

AN 1997:107401 CAPLUS

DN 126:122511

TI Biocompatible hydroxyapatite formulations for medical and dental use

IN Constantino, Peter D.; Friedman, Craig D.; Sen, Arup

PA Osteogenics Inc., USA

SO PCT Int. Appl., 77 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9639202	A1	19961212	WO 1996-US8652	19960603
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
	CA 2223596	AA	19961212	CA 1996-2223596	19960603
	AU 9661496	A1	19961224	AU 1996-61496	19960603
	AU 723740	B2	20000907		
	EP 830149	A1	19980325	EP 1996-919055	19960603
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 9608344	A	19990105	BR 1996-8344	19960603
	JP 11506659	T2	19990615	JP 1996-501179	19960603
PRAI	US 1995-468084	A	19950606		
	US 1995-469909	A	19950606		
	US 1995-471216	A	19950606		
	WO 1996-US8652	W	19960603		

AB A biocompatible hydroxyapatite formulation is pptd. from a mixt. of a liq.

phase, a bioactive or biocompatible additive which may be any of a no. of bioreactive or other substances, and a base combination of calcium **phosphate** salts. The liq. phase and the additive may be combined to produce an augmented liq. phase, which is then mixed with the base

salt

combination. The additive is chosen to achieve a desired effect during administration of the formulation to a plant or animal. The additive is released into the surrounding physiol. milieu and the hydroxyapatite component is resorbed (no data).

L12 ANSWER 23 OF 32 CAPLUS COPYRIGHT 2001 ACS

AN 1996:386327 CAPLUS

DN 125:82695

TI Studies of the integration between **bone** morphogenetic **protein** treated titanium/bioceramic composite and host bone after implantation



AU Guo, Qingke; Tang, Wenjie; Xiao, Guangyu; Wang, Hong; Yan, Ying; Wu, Bende; Liao, Jichang; Pang, Wei  
 CS Tangdu Hospital, Fourth Military Medical University, Xian, 710038, Peop. Rep. China  
 SO Disi Junyi Daxue Xuebao (1996), 17(2), 138-140  
 CODEN: DJDXEG; ISSN: 1000-2790  
 DT Journal  
 LA Chinese  
 AB The porous, bioactive titanium/glass-ceramic composite was made from Tc4, HA and BGC, which were sintered at high temp. The composite material treated with **bone morphogenetic protein (BMP)** ) was implanted in jaw and femur of adult dogs for 1.apprx.12 wk. The bone-implant interfaces were studied and the content of new bone formation was measured. The results showed that the integration of the composite material and host bone was formed, and the interface consists of three phases (titanium oxide, HA crystal phase, glass ceramic phase) in the interface. A layer of calcium **phosphate** and bioceramic deposition were formed. The combination of proteoglycan **mucoitin** with host bone and the inducement of calcium **phosphate** deposition might play an important role in the osteointegration between implant and bone. The process of osteogenesis was enhanced by treatment of implant material with **BMP**.

L12 ANSWER 24 OF 32 CAPLUS COPYRIGHT 2001 ACS

AN 1994:253359 CAPLUS

DN 120:253359

TI Biocompatible polymer conjugates of natural polymers

IN Rhee, Woonza; Wallace, Donald G.; Michaels, Alan S.; Burns, Ramon A., Jr.;

Fries, Louis; Delustro, Frank; Bentz, Hanne; Mccullough, Kimberly; Damani,

Ramesh; Berg, Richard A.

PA Collagen Corp., USA

SO PCT Int. Appl., 103 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 18

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9401483	A1	19940120	WO 1993-US6292	19930701
	W: AU, JP				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5324775	A	19940628	US 1992-907518	19920702
	US 5328955	A	19940712	US 1992-922541	19920730
	US 5292802	A	19940308	US 1992-985680	19921202
	US 5308889	A	19940503	US 1992-984197	19921202
	AU 9346620	A1	19940131	AU 1993-46620	19930701
	AU 677789	B2	19970508		
	EP 648239	A1	19950419	EP 1993-916926	19930701
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
SE	JP 08502082	T2	19960305	JP 1993-503427	19930701
PRAI	US 1992-907518	A	19920702		
	US 1992-922541	A	19920730		
	US 1992-984197	A	19921202		
	US 1992-984933	A	19921202		
	US 1992-985680	A	19921202		
	US 1993-25032	A	19930302		
	US 1988-274071	B2	19881121		
	US 1989-433441	A2	19891114		
	WO 1993-US6292	A	19930701		
AB	Non-immunogenic conjugates are formed by covalently binding a biol. inactive, natural polymer or deriv. thereof to synthetic hydrophilic polymers, e.g. PEG, via specific types of chem. bonds. The biocompatible				

conjugates can be used for soft tissue augmentation and for coating or forming various articles. The compns. may include other components such as liq., pharmaceutically acceptable carriers to form injectable formulations, and/or biol. active proteins such as growth factors or cytokines. A soln. of transforming growth factor .beta.1 (TGF-.beta.1) was added to a soln. of difunctionally activated PEG and the mixt. was allowed to react for 2 min at 17.degree.. To this soln. was added a fibrillar atelopeptide collagen soln. and the resulting mixt. allowed to incubate overnight at ambient temp. to form pellets comprising collagen-PEG-TGF-.beta.1 conjugate. After washing the pellets 6 times with **phosphate** buffer .apprx.50% of TGF-.beta.1 was retained in the compn.

L12 ANSWER 25 OF 32 BIOSIS COPYRIGHT 2001 BIOSIS

AN 1994:324820 BIOSIS

DN PREV199497337820

TI Histological features of connective tissues.

AU Byers, Paul D.

CS 18 Wimpole St., London W1M 7AD UK

SO Salisbury, J. R. [Editor]; Woods, C. G. [Editor]; Byers, P. D. [Editor]. (1994) pp. 476-508. Diseases of bones and joints: Cell biology, mechanisms, pathology.

Publisher: Chapman and Hall Ltd. 2-6 Boundary Row, London SE1 8HN, England.

ISBN: 0-412-48010-7.

DT Book

LA English

L12 ANSWER 26 OF 32 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.

AN 94272250 EMBASE

DN 1994272250

TI Binding and growth-inhibitory effect of heparin and oligo-heparin (2 kDa) in Balb/c 3T3 cells: Lack of effect on PDGF- or serum-induced inositol lipid turnover.

AU Cavari S.; Fiorelli G.; Vannucchi S.

CS Istituto di Patologia Generale, University of Firenze, Viale Morgagni 50,50134 Firenze, Italy

SO British Journal of Pharmacology, (1994) 113/1 (254-260).

ISSN: 0007-1188 CODEN: BJPCBM

CY United Kingdom

DT Journal; Article

FS 023 Nuclear Medicine

029 Clinical Biochemistry

030 Pharmacology

037 Drug Literature Index

LA English

SL English

AB The ability of heparins (bovine heparin sm 1026, Av. mol. wt. 36.9 kDa and

bovine heparin EP 756, Av. mol. wt. 12.9 kDa) and heparin fractions of different molecular weights (low molecular weight heparin, LMW 2123/OP, Av. mol. wt. 4.5 kDa and oligo-heparin, Av. mol. wt. 2 kDa) to inhibit the proliferation and signalling of Balb/c 3T3 fibroblasts was investigated. Heparin and heparin fractions of 4.5 and 2 kDa

significantly

inhibited DNA synthesis as monitored by [3H]-thymidine incorporation.

3H-labelled heparin fractions of 4.5 and 2 kDa were prepared by gel-chromatography fractionation on Sephadex G-75 of an 3H-labelled commercial heparin after treatment with heparinase. The binding of unfractionated and oligo-heparin of 2 kDa to Balb/c 3T3 fibroblasts was studied; we determined the specificity of heparin and oligo-heparin binding to the cells by means of displacement of bound 3H-labelled compound in response to increasing concentrations of unlabelled

compounds.

Scatchard analysis of binding data obtained using [3H]-heparin as ligand revealed the presence of a single class of high affinity binding sites

(K(d) = 28 nM) for heparin. Scatchard analysis of binding data obtained using [3H]-oligo-heparin as ligand revealed the presence of a single class of low affinity binding sites (K(d)= 3.2 .mu.M) for oligo-heparin. In addition heparin displaced [3H]-oligo-heparin at a concentration of approximately 100 fold of the K(d) determined in displacement studies. Furthermore, oligo-heparin significantly displaced [3H]-heparin at a concentration of approximately 10 fold of the K(d) determined by displacement studies. Both heparin and oligo-heparin exert their inhibitory effects on Balb/c 3T3 DNA synthesis stimulated by PDGF or serum. However these molecules did not affect the inositol lipid turnover triggered by PDGF at a concentration which did not produce maximal response. The increase of inositol **phosphate** metabolism produced by 20% serum was also unaffected by heparin. This concentration of serum elicited a response comparable to that induced by a submaximal concentration of PDGF.

L12 ANSWER 27 OF 32 CAPLUS COPYRIGHT 2001 ACS

AN 1993:588652 CAPLUS

DN 119:188652

TI Porous non-toxic implant

IN Johansson, Thomas

PA Lucocer Aktiebolag, Swed.

SO PCT Int. Appl., 13 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9313815	A1	19930722	WO 1992-SE784	19921113
	W: AT, AU, BB, BG, BR, CA, CH, CS, DE, DK, ES, FI, GB, HU, JP, KP, KR, LK, LU, MG, MN, MW, NL, NO, PL, RO, RU, SD, SE, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, SN, TD, TG				
	SE 9200072	A	19930714	SE 1992-72	19920113
	SE 469653	B	19930816		
	SE 469653	C	19931209		
	AU 9332699	A1	19930803	AU 1993-32699	19921113
	EP 623031	A1	19941109	EP 1993-901443	19921113
	EP 623031	B1	20000202		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL				
	JP 07506732	T2	19950727	JP 1992-512370	19921113
	AT 189401	E	20000215	AT 1993-901443	19921113
PRAI	SE 1992-72		19920113		
	WO 1992-SE784		19921113		
AB	An implant comprises a porous non-toxic material, e.g. Ti, having a total open porosity of 5-80% by vol. The communicating micropores, having a size of .gtoreq.10.mu.m, make up .ltoreq.10% of the total pore vol. in at least 1 portion of the implant, and .gtoreq.5% of at least 1 section of the surface of the implant is covered evenly by distributed pores having				
a	pore size .gtoreq.50.mu.m. The pores contain a bone-promoting agent,				
e.g.	IGF, in a carrier.				

L12 ANSWER 28 OF 32 CAPLUS COPYRIGHT 2001 ACS

AN 1994:86532 CAPLUS

DN 120:86532

TI Absorbable bone sealant

IN Light, Nicholas D.; Gorham, Steven D.; French, Derek A.

PA Johnson and Johnson Medical, Inc., USA

SO Eur. Pat. Appl., 8 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 572272	A1	19931201	EP 1993-304178	19930528
	EP 572272	B1	19990811		
	R: AT, BE, CH, FR, GB, IT, LI, LU, NL, PT, SE				
	AU 9338786	A1	19931202	AU 1993-38786	19930524
	AU 669519	B2	19960613		
	CA 2097268	AA	19931130	CA 1993-2097268	19930528
	BR 9302089	A	19931207	BR 1993-2089	19930528
	AT 183103	E	19990815	AT 1993-304178	19930528
PRAI	GB 1992-11432		19920529		

AB An absorbable bone sealant compns. comprise a fibrous protein, e.g collagen 10-70; a tackifying agent, e.g. dextran 1-20; a mucopolysaccharide, e.g. **hyaluronic** acid 0.001-20; and a physiol. acceptable electrolyte soln., e.g. **phosphate**-buffered physiol. saline 10-80%. The compns. are malleable, absorbable, biocompatible and exhibit excellent storage properties at 30.degree.C. Glycerol 30, and dextran-70 8 g were dissolved in 27mL of water, then

17.5 g of solubilized collagen and 17.5 g of fibrin powder was dispersed in the soln. by mixing to obtain an absorbable sealant compn. which was sterilized by .gamma.-irradn.

L12 ANSWER 29 OF 32 CAPLUS COPYRIGHT 2001 ACS

AN 1990:637890 CAPLUS

DN 113:237890

TI Manufacture of collagen membranes as dental prosthetics

IN Kuboki, Yoshinori; Kato, Hiromu

PA Sangi Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 02156954	A2	19900615	JP 1988-309845	19881209
	JP 06069486	B4	19940907		

AB A collagen membrane as a prosthetic material that helps generate dental tissues is prepd. by treating collagen fibers with a crosslinking agent

or

NaBO4 and mixing the fibers with **bone-forming proteins**, **hyaluronic** acid, chondroitinsulfuric acid, fibronectin, osteonectin, etc. Thus, a collagen membrane was obtained by sterilizing bovine skin collagen, making it into a flat gel in a **phosphate** buffer, treating it with NaBH4, eliminating water, further dehydrating with EtOH, and drying under reduced pressure.

L12 ANSWER 30 OF 32 TOXLIT

AN 1991:3843 TOXLIT

DN CA-113-237890E

TI Manufacture of collagen membranes as dental prosthetics.

AU Kuboki Y; Kato H

SO (1990). Jpn. Kokai Tokkyo Koho PATENT NO. 90156954 06/15/90 (Sangi Co., Ltd.).

CY Japan

DT Patent

FS CA

LA Japanese

OS CA 113:237890

EM 199101

AB A collagen membrane as a prosthetic material that helps generate dental tissues is prepd. by treating collagen fibers with a crosslinking agent

or

NaBO4 and mixing the fibers with **bone-forming proteins**, **hyaluronic** acid, chondroitinsulfuric acid, fibronectin, osteonectin, etc. Thus, a collagen membrane was obtained by sterilizing bovine skin collagen, making it into a flat gel in a **phosphate** buffer, treating it with NaBH4, eliminating water, further dehydrating with EtOH, and drying under reduced pressure.

L12 ANSWER 31 OF 32 MEDLINE DUPLICATE 5  
 AN 90367368 MEDLINE  
 DN 90367368 PubMed ID: 2118436  
 TI **Bone** morphogenetic **protein**-mediated interaction of periosteum and diaphysis. Citric acid and other factors influencing the generation of parosteal bone.  
 AU Kubler N; Urist M R  
 CS Universitätsklinik u. Polikliniken f. Zahn-, Mund- u. Kieferkrankheiten, Würzburg, Federal Republic of Germany.  
 NC DEO2103 (NIDCR)  
 SO CLINICAL ORTHOPAEDICS AND RELATED RESEARCH, (1990 Sep) (258) 279-94. Journal code: DFY; 0075674. ISSN: 0009-921X.  
 CY United States  
 DT Journal; Article; (JOURNAL ARTICLE)  
 LA English  
 FS Abridged Index Medicus Journals; Priority Journals  
 EM 199010  
 ED Entered STN: 19901109  
 Last Updated on STN: 19970203  
 Entered Medline: 19901005  
 AB In rabbits, after long-bone growth is complete and the cambium layer regresses, mesenchymal-type cells with embryonic potential (competence) for bone development persist in the adventitial layer of periosteum.

These

cells are not determined osteoprogenitor cells (stem cells) because bone tissue differentiation does not occur when adult periosteum is transplanted into a heterotopic site. In this respect, adventitial cells differ from bone marrow stroma cells. In a parosteal orthotopic site in the space between the adult periosteum and diaphysis, implants of **bone** morphogenetic **protein** (**BMP**) and associated noncollagenous proteins (**BMP/NCP**) induce adventitia and adjacent muscle connective-tissue-derived cells to switch from a fibrogenetic to a chondroosteoprogenetic pattern of bone development. The quantity of induced bone is proportional to the dose of **BMP/NCP** in the range from 10 to 50 mg; immature rabbits produced larger deposits than mature rabbits in response to **BMP/NCP**. Preoperative local intramuscular injections of citric, edetic, or **hyaluronic** acids in specified concentrations markedly enhanced subperiosteal **BMP/NCP**-induced bone formation. The quantity of bovine or human **BMP/NCP**-induced bone formation in rabbits is also increased by very low-dose immunosuppression but not by bone mineral, tricalcium **phosphate** ceramic, inorganic calcium salts, or various space-occupying, unspecific chemical irritants. Although composites of **BMP/NCP** and allogeneic rabbit tendon collagen increased the quantity of bone in a parosteal site, in a heterotopic site the composite failed to induce bone formation. In a parosteal site, the conditions permitting **BMP/NCP**-induced bone formation develop, and the end product of the morphogenetic response is a duplicate diaphysis. How **BMP** reactivates the morphogenetic process in postfetal mesenchymal-type adventitial cells persisting in adult periosteum (including adjacent muscle attachments) is not known.

L12 ANSWER 32 OF 32 EMBASE COPYRIGHT 2001 ELSEVIER SCI. B.V.  
 AN 78214346 EMBASE  
 DN 1978214346  
 TI Effect of cholecystokinin variant (CCK39) on dispersed acinar cells from guinea pig pancreas.  
 AU Sjodin L.; Gardner J.D.  
 CS Sect. Gastroenterol., Dig. Dis. Branch, Nat. Inst. Arthr. Metab. Dig.

Dis., NIH, Bethesda, Md. 20014, United States  
 SO Gastroenterology, (1977) 73/5 (1015-1018).  
 CODEN: GASTAB  
 CY United States  
 DT Journal  
 FS 037 Drug Literature Index  
 048 Gastroenterology  
 003 Endocrinology  
 LA English  
 AB In dispersed acinar cells from guinea pig pancreas, cholecystokinin variants (CCK39 and CCK33) or carboxyl-terminal octapeptide of cholecystokinin (CCK-OP) caused significant increases in outflux of <sup>45</sup>Ca, cyclic GMP, and release of amylase. In homogenates of acinar cells each peptide caused a significant increase in adenylate cyclase activity. For each function tested CCK39 was equipotent with CCK33, CCK39 and CCK33 were 10 to 30 times less potent than CCK-OP, the efficacies of CCK39, CCK33, and CCK-OP were the same, and none of these effects were altered by concentrations of atropine sufficient to abolish the action of muscarinic cholinergic agents.

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